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April 18, 2025

**VIA email**

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In re: Akoustis Technologies, Inc., Case No. 24-12796

Dear Counsel:

As promised, I write to provide my ruling on the evidentiary hearing held yesterday in the referenced matter. Because of the urgent nature of this matter, I am emailing this letter to counsel on a day that the court is closed for a state holiday. This letter will be placed on the docket on Monday, April 21, 2025.

***Overview***

The parties are familiar with the background, which will not be repeated here in any depth. Pre-bankruptcy, Qorvo, Inc. sued Akoustis Technologies, Inc. and Akoustis, Inc. ("Akoustis" or "Debtors") in the United States District Court for the District of Delaware for, among other things, theft of trade secrets related to Qorvo's design and manufacturing

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of BAW filters.<sup>1</sup> On May 17, 2024, a jury found Akoustis liable for trade secret misappropriation. Thereafter, the District Court issued its Order Granting in Part and Denying in Part Plaintiff's Motion for Permanent Injunctive Relief.<sup>2</sup> On October 15, 2024, the District Court entered a Permanent Injunction.<sup>3</sup> As relevant here, paragraph seven of the Permanent Injunction identifies "Qorvo Trade Secret Information" as "confidential information copied or derived from, in whole or in part," documents listed by Trial Exhibit and page number on pages seven through twelve of the Permanent Injunction.

Debtors filed voluntary bankruptcy petitions on December 16, 2024 with the express purpose of marketing their assets for sale and with the express recognition that they could not sell any property containing Qorvo Trade Secret Information. Because of that, the timeline for the proposed sale needed to incorporate time for Debtors to "cleans" their assets and for Qorvo to be able to file any objection to the cleansing or the proposed assets to be sold. By virtue of my previous Bid Procedures Order<sup>4</sup> Akoustis was to provide Qorvo with the data proposed to be marketed, and thus cleansed, so that Qorvo could contemporaneously conduct its own review. The Bid Procedures Order also established a special hearing (prior to the sale hearing) for any disagreements over the cleansing process to be resolved. Pursuant to the Bid Procedures Order, Qorvo filed its Trade Secret Objection<sup>5</sup> on April 4, 2025 and the evidentiary hearing was held on April 17, 2025.

To everyone's credit, prior to the evidentiary hearing, Akoustis and Qorvo resolved many disagreements on whether certain documents/data contain Qorvo Trade Secret Information.<sup>6</sup> Akoustis also significantly narrowed the property which it believed was necessary for any go-forward business, thus eliminating the need to cleans" that data/documents for purposes of the sale. The four areas of remaining contention are: (i) documents in Group 2 (Qorvo BAW filter and resonator designs, sixteen trade secrets) and Group 3 (Qorvo's trimming method and procedures, three trade secrets) on which the parties have not yet agreed; (ii) documents which Qorvo has not yet reviewed (including documents provided to Qorvo at the end of March); (iii) documents withheld from Qorvo

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<sup>1</sup> Case No. 1:21-cv-01417-JPM.

<sup>2</sup> Debtor Ex. 1.

<sup>3</sup> Debtor Ex. 2.

<sup>4</sup> ECF 176, as amended multiple times, ending with ECF 384.

<sup>5</sup> ECF 405.

<sup>6</sup> There is no disagreement on Qorvo Trade Secret Information in Groups 4, 5, 6 and 7.

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because of confidentiality concerns and (iv) files and folders that may be on external devices (collectively, “Disputed Data”).

Based on the evidence presented, I conclude that Debtors have not met their burden to show that the Disputed Data have been cleansed. As such, at this time, Debtors may not sell the Disputed Data.<sup>7</sup>

### *Evidence*

The evidence consists of exhibits offered by both parties and the testimony (through declaration and/or on the stand) of five witnesses.<sup>8</sup> Having heard and/or reviewed the evidence and considering the credibility of the witnesses, I find the following facts.

#### *i. Debtors’ review process*

Stroz Freidberg was in charge of the collection of data to be reviewed for cleansing. Data sources included email mailboxes and general documents on various software systems, various cloud data sources, documents stored on corporate servers, extractable data from tools and virtual machines and servers. External drives were not collected.

After collecting the data, Stroz Freidberg provided certain data (at the direction of Akoustis and counsel) to TCDI for review. First, TCDI reviewed the data by use of search terms provided by Akoustis and Qorvo. For this review, TCDI used RelativityOne, an eDiscovery tool, which assists in first-pass review. This type of review can enable a more efficient and effective document review. Any documents that did not contain the search terms did not require further review and TCDI marked them as not requiring remediation (i.e., no cleansing necessary).

Second, TCDI performed a review using “conceptual analytics.” TCDI used the Relativity Active Learning model to perform this review. This is a Technology-Assisted Review (“TAR”) tool, in other words, an artificial intelligence tool, which is trained by introducing an initial set of documents and engaging in an iterative process of sampling through which it improves its search capabilities. The TAR was trained with exhibits from the District Court litigation identified as containing Qorvo secrets.<sup>9</sup> Mr. Bastawros did not

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<sup>7</sup> This can change if, prior to any sale, Akoustis and Qorvo agree that some or all of the Disputed Data do not need remediation or will be remediated.

<sup>8</sup> During discrete testimony that implicated the details of Qorvo Trade Secret Information, the courtroom was sealed. Similarly, certain exhibits, or portions thereof, were admitted under seal. It is not necessary to discuss the specifics of that information to rule on this dispute.

<sup>9</sup> While Mr. Bastawros did not testify to this, presumably, these were the Exhibits identified on pages seven through twelve of the Permanent Injunction.

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specifically know the concepts used. Any Akoustis data with a 70% or greater similarity to the exhibits were identified for further review.

Third, TCDI performed a “categorization analysis” on the exhibits from the District Court litigation. Again, documents with a 70% or higher relevancy rating were identified for further review.

Fourth, the documents requiring further review were reviewed by TCDI’s “Managed Document Review” team, which consisted of contract reviewers hired through TCDI’s military spouse program. At any one time, the team fluctuated in size from ten to between thirty and forty. The Managed Document Review team reviewed the documents for potential relevancy, marking them as they determined appropriate based on that review. While some of the Managed Document Review team may have scientific backgrounds, there is no evidence that any of them have education or training in the relevant technology.

Fifth, and perhaps in conjunction with the review by the Managed Document Review team, the documents were ranked by the Relativity Active Learning model. Any documents with a rank of 82% or higher were marked for remediation.

Finally, K&L Gates reviewed a sample of 385 documents below the 82% rank to determine whether they contained Qorvo Trade Secret Information. They determined no documents contained such information. This test confirms with 95% certainty and a 5% margin of error that no document with a rank below 82% contained Qorvo Trade Secret Information.

*ii. Qorvo’s review process*

Stroz sent data, on a rolling basis, to Kevin Faulkner of Aletheian Labs, LLC, Qorvo’s agent. Under the initial Bid Procedures Order, document production was to be complete by January 17, 2025. Instead, as of February 20, only 50% of the documents were produced to Qorvo. Documents continued to be produced through the end of March.

Once received, Mr. Faulkner reviewed the data and, with the assistance of Sheppard Mullin, Qorvo’s intellectual property counsel, and Dr. Stanley Shanfield, Mr. Faulkner determined how the data would be reviewed. Any data that they determined could be searched by keywords was sent to Qorvo’s eDiscovery vendor, Consilio, LLC. Consilio processed and searched that data also using a Relativity platform. Sheppard Mullin attorneys then did a secondary review. As a third level of review, Dr. Shanfield intended to review these documents, but he did not have time to do so.

Any data that Mr. Faulkner, Sheppard Mullin and Dr. Shanfield determined could not be reviewed by keywords (i.e., where such a search would be ineffective) was sent to Dr. Shanfield for review. Dr. Shanfield holds a B.S. in Physics from UC Irvine and a Ph.D. in Physics from MIT. He has deep knowledge of and experience in radio frequency

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technology and BAW filters through forty years of work experience. He holds numerous patents related to semiconductor technology and has published in the area. He was accepted (without objection) as an expert in the semiconductor industry and radio frequency technology, including BAW filters.

Dr. Shanfield is familiar with the Qorvo Trade Secret Information from his work on the underlying lawsuit on behalf of Qorvo. For this current assignment, Dr. Shanfield compared Qorvo Trade Secret Information (i.e., the Exhibits listed on pages seven through twelve of the Permanent Injunction) to the documents provided to him by Mr. Faulkner. To do so, Dr. Shanfield loaded the information, used appropriate applications and opened folders and files. He then analyzed whether any Qorvo Trade Secret Information existed in that particular data. In analyzing the data/images, Dr. Shanfield relied on his knowledge and experience with radio frequency technology and BAW filters.

Dr. Shanfield explained that his review identified Qorvo Trade Secret Information that were not exact duplicates but were either derivative of a trade secret or a trade secret expressed in a different way. For example, in the Akoustis documents, he identified certain trimming algorithms developed by Qorvo (in Group 3); while the formula was expressed differently, it was arithmetically the same. Other Akoustis documents reflected calculations made with the algorithms or data derivative of the calculations. Each of these types of documents was marked for remediation. Dr. Shanfield's review was thorough and he strove to be accurate. He did not attempt to be overinclusive or to take blanket positions. He required a clear indication that the data/images he was reviewing contained Qorvo Trade Secret Information to mark it for remediation. Dr. Shanfield acknowledges that he did not eliminate "family member tagging" from his identified documents, which would account for any public documents or non-Qorvo Trade Secret Information he marked for remediation.<sup>10</sup> Further, given the pervasiveness of the Qorvo Trade Secret Information in Akoustis's business as well as his review to date, he feels confident that the unreviewed documents will contain prohibited information.

### *Conclusions*

Debtors and Qorvo agree that the question I must answer is whether the cleansing process was successful so that the assets to be sold no longer contain Qorvo Trade Secret

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<sup>10</sup> Mr. Bastawros also acknowledged the practice of "family member tagging" (i.e., if one document is tagged as a hit in the review, all attachments or emails in the string are tagged as well even if these additional documents do not contain the targeted information).

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Information.<sup>11</sup> They also agree that Debtors have the burden of proof. In an ownership dispute, the burden is a “heavy one.”<sup>12</sup>

Debtors contend that their cleansing process was sufficiently robust to cull out offending files and folders, particularly in light of the financing constraints which dictated the timeline of the case. Debtors argue that TCDI’s review was sufficient because the methods employed in the cleanse (Relativity’s TAR) are “standard in the industry.”<sup>13</sup>

Qorvo contends that its own review shows that Qorvo Trade Secret Information is still present in certain Akoustis documents and undoubtedly will be present in documents not yet reviewed or not made available to it. It further contends that to ensure any Akoustis data sold is indeed cleansed of Qorvo Trade Secret Information, a review such as that performed by Dr. Shanfield is necessary.

Whether TAR is standard in the industry is not the proper question here. Rather, because Debtors cannot sell what they do not own, they must establish ownership rights over a set of technical data in varying formats. The question, then, is whether the tools TCDI used enabled Debtors to untangle and excise from its data set sophisticated intellectual property that had become enmeshed after significant misappropriation.

On the record made, Debtors have not proven that TCDI’s use of Relativity’s TAR has produced the desired results. In particular, Dr. Shanfield’s testimony illustrates the various ways in which Qorvo’s Trade Secret Information could be—and is— embedded in Akoustis documents containing algorithms, formulas, diagrams and charts as well as the nuanced approach necessary to discover it. Akoustis provided no evidence that its TAR review picked up documents identified by Dr. Shanfield.<sup>14</sup>

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<sup>11</sup> I am not concerned here with the disposition of assets that Debtors are not offering for sale.

<sup>12</sup> *In re Whitehall Jewelers Holdings, Inc.*, Case No. 08-11261, 2008 WL 2951974, at \*6 (Bankr. D. Del. July 28, 2008).

<sup>13</sup> ECF 432 ¶ 22.

<sup>14</sup> Akoustis did offer in rebuttal the testimony of Christian Cassella, Ph.D., an Associate Professor at Northeastern University. Dr. Cassella earned a B.S. and an M.S. in Electrical and Computer Engineering from Tor Vergata University in Rome, Italy as well as a Ph.D. in Electrical and Computer Engineering from Northeastern University. He has authored articles in peer-reviewed journals, has received multiple awards in his field and has relevant research experience. He has not previously testified in a court proceeding. I accepted him (without objection) as an expert in micro-electro-mechanical systems (MEMS) and filter technology. To be crystal clear, I do not reject Dr. Cassella’s testimony or any opinion he may have given. Rather, I conclude that the question he was asked to opine on (whether Akoustis would have found the Qorvo Trade Secret Information beneficial in further developing or improving its products) was not relevant to the dispute before me.

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Further, the cases cited by Akoustis are distinguishable as they generally concern discovery disputes.<sup>15</sup> TAR searches may be sufficient to root out relevant documents in discovery disputes and may have proven sufficient to find Qorvo Trade Secret Information in many Akoustis emails and written documents. But even this was not proven by a preponderance of the evidence.

Finally, the existence of time constraints—even ones based on real financial limitations—cannot change or impact this analysis. In this ownership dispute, the task here is not to do the best job one can in the time allotted, but to ensure that the Qorvo Trade Secret Information is not sold to a third party thus undermining the jury verdict and violating the Permanent Injunction. While I recognize that Qorvo is a competitor who may be motivated to see Debtors' sale process fail, I cannot find based on the evidence before me that Qorvo acted in bad faith or intentionally dragged its feet in the review process. Debtors were overly optimistic in their assessment of when all documents could be provided to Qorvo, which directly impacted the ability to review documents in the necessary timeframe. Importantly, the financial and time constraints, as well as the need in the first instance to engage in the cleanse, cannot be laid at Qorvo's feet.

For these reasons I conclude that the Disputed Data cannot be sold.

Very truly yours,



Laurie Selber Silverstein

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<sup>15</sup> *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182 (S.D.N.Y. 2012) (gender discrimination case involving the search of more than three million emails); *Winfield v. City of New York*, 15-CV-05236, 2017 WL 5664852 (S.D.N.Y. Nov. 27, 2017) (in a suit involving racial disparities stemming from city housing policies, “[t]he issues presently before the court relate to the [defendant’s] production of electronic documents.”); *Berger v. Graf Acquisition, LLC*, C.A. No. 2023-0873, 2024 WL 4541011 (Del. Ch. Oct. 21, 2024) (granting, in part, plaintiff’s motion to compel while allowing defendants to use TAR to review documents; noting that “TAR promotes efficiency in the discovery process in several meaningful ways.”); *Livingston v. City of Chicago*, No. 16 CV 10156, 2020 WL 5253848 (N.D. Ill. Sept. 3, 2020) (denying plaintiff’s motion to compel a particular method of reviewing emails and documents).